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PRAGMATIC APPROACH TO DEVICE-INDEPENDENT COLOR

Roger D. Brandt*

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California 91109-8099

Kris S. Capraro

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California 91109-8099

his paper describes an effort to produce device-independent color on three types of devices: Color monitors, a high precision color film recorder, and a color printer that uses a dye sublimation process. One definition of device-independent color states that images produced on different devices, from the same image data, shall produce near the same response in the human visual system when viewed under the proper lighting conditions. A procedure is described that was used to calibrate and profile the devices in the xyY color coordinate system. This procedure characterizes the device in a color coordinate system. The calibration data, the profile data, and the image data were fed into a color management system (CMS) that transformed the image data into device-dependent values. The results of the study are presented in terms of tabular and graphical comparisons of the target values and the actual values obtained for twenty-four color patches.

Keywords: device-independent color, color management system